eSATA II PCIe Pro RAID Quick Installation Guide

Introducing the *eSATA II PCIe Pro RAID*

The *eSATA II PCIe Pro RAID* is an ultra high-speed two channel Serial ATA Generation II RAID controller for use in PCI Express enabled systems.

Features and Benefits

- Compliant with PCI Express Base Specification 1.0a
- Compliant with Serial ATA 1.0 specifications with support for full complement of SATA II optional features
- PCI Express 1-lane (x1) SATA II adapter works with PCI Express slots with different lane width
- Installs in any available PCI Express slot and supports data transfer rates up to 3.0Gbps (300MBps)
- Supports Native Command Queuing (NCQ), Non-zero offsets NCQ, and Out-of-order data delivery NCQ
- Independent command fetch, scatter/gather, and command execution
- Supports RAID 0 (striping) and RAID 1 (mirroring) for speed and data protection respectively

System Requirements

- PCI Express enabled system with one available PCI Express slot
- Windows 2000/XP (32-/64-bit)/Server 2003 (32-/64-bit)/Vista (32-/64-bit)
- 2 External SATA drives

Package Contents

- *eSATA II PCIe Pro RAID* board
- Driver software CD
- Quick Installation Guide

Layout

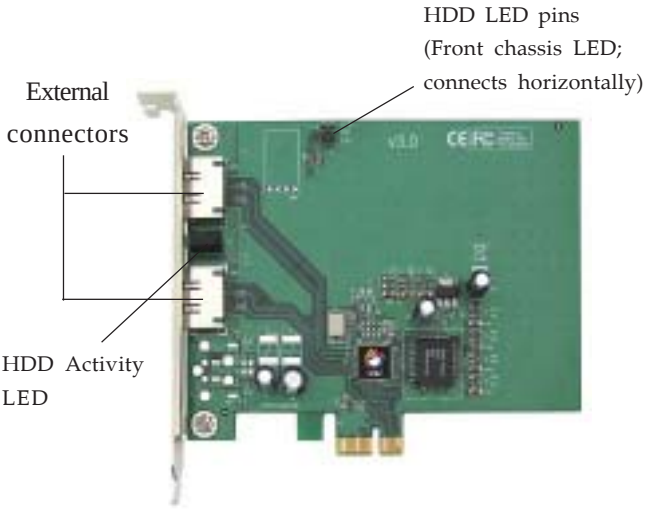

Figure 1. eSATA II PCIe Pro RAID layout

Hardware Installation

General instructions for installing the card are provided below. Since the design of computer cases and motherboards vary, refer to your computer's reference manual for further information, if needed.

Static Electricity Discharge may permanently damage your system. Discharge any static electricity build up in your body by touching your computer case for a few seconds. Avoid any contact with internal parts and handle cards only by their external edges.

1. Turn OFF the power to your computer and any other connected peripheral device.
2. Unplug the power cord from the back of the computer.
3. Remove your computer cover.
4. Remove the slot bracket from an available PCI Express slot.
5. To install the card, carefully align the card's bus connector with the selected PCI Express slot on the motherboard. Push the board down firmly, but gently, until it is well seated.
6. Replace the slot bracket holding screw to secure the card.
7. Replace the computer cover and reconnect the power cord.

External Device Connection

External Serial ATA hard disk drives should come with their own accessories. In most cases, you just need to power up the external device and connect it to the external port.

The *eSATA II PCIe Pro RAID* is a two channel Serial ATA controller that supports two Serial ATA hard disk drives. It is recommended to use identical drives for all RAID configurations, however, it's possible to combine hard drives of different sizes and makes.

RAID Arrays

RAID Arrays are setup in the *eSATA II PCIe Pro RAID* BIOS.

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RAID 0 (Striping)

This RAID array to be used on **New/Blank** hard drives. Striping will destroy existing data on the hard drive. **Auto Configuration** is recommended. For applications that require a custom chunk size, **Manual Configuration** is offered.

Auto Configuration (recommended)

The default chunk size is **64k** when selecting **Auto configuration**.

1. As the BIOS boots press **Ctrl+S** or **F4** when prompted to enter the **RAID** BIOS.
2. At the next screen select **Create RAID Set**, then press **Enter**.
3. Select **RAID0**, then press **Enter**.
4. Select **Auto configuration**, then press **Enter**.
5. Input the RAID size, then press **Enter**.

6. When asked **Are You Sure (Y/N)?**, press **Y** to accept.
7. Press **Ctrl+E** to exit the BIOS.
8. When asked **Are you sure to exit (Y/N)?**, press **Y** to exit and reboot.
9. Continue with Fdisk and Format steps as if you were installing a conventional hard drive.

Manual Configuration

1. As the BIOS boots press **Ctrl+S** or **F4** when prompted to enter the **RAID** BIOS.
2. At the next screen select **Create RAID Set**, then press **Enter**.
3. Select **RAID0**, then press **Enter**.
4. Select **Manual configuration**, then press **Enter**.
5. Select chunk size from **8k**, **16k**, **32k**, **64k** or **128k**, then press **Enter**.
6. Select the **first drive**, then press **Enter**.
7. Select the **second drive**, then press **Enter**.
8. Input the RAID size, then press **Enter**.
9. When asked **Are You Sure (Y/N)?**, press **Y** to accept.
10. Press **Ctrl+E** to exit the BIOS.
11. When asked **Are you sure to exit (Y/N)?**, press **Y** to exit and reboot.
12. Continue with Fdisk and Format steps as if you were installing a conventional hard drive.

RAID 1 (Mirror)

For New/Blank Hard Drives

1. As the BIOS boots press **Ctrl+S** or **F4** when prompted to enter the **RAID** BIOS.

2. At the next screen select **Create RAID Set**, then press **Enter**.
3. At the next screen select **RAID1**, then press **Enter**.
4. Select **Auto configuration**, then press **Enter**.
5. Input the RAID size, then press **Enter**.
6. When asked **Are You Sure (Y/N)?**, press **Y** to accept.
7. Press **Ctrl+E** to exit the BIOS.
8. When asked **Are you sure to exit (Y/N)?**, press **Y** to exit and reboot.
9. Continue with Fdisk and Format steps as if you were installing a conventional hard drive.

For Existing Hard Drives with Data

1. As the BIOS boots press **Ctrl+S** or **F4** when prompted to enter the **RAID** BIOS.
2. At the next screen select **Create RAID Set**, then press **Enter**.
3. At the next screen select **RAID1**, then press **Enter**.
4. Select **Manual configuration**, then press **Enter**.
5. Select the **Source** drive, then press **Enter**.
6. Select the **Target** drive, then press **Enter**.
7. Select **Create with data copy**, then press **Enter**.
8. Select **online copy**, then press **Enter**.

> **Note**: Selecting **Online Copy** builds the mirror while in Windows. Selecting **Offline Copy** builds the mirror before exiting the RAID BIOS.

9. Input the RAID size, then press **Enter**.
10. Press **Ctrl+E** to exit the BIOS.
11. When asked **Are you sure to exit (Y/N)?**, press **Y** to exit and reboot.

Single Drive Setup

Setting up your hard drive to operate as a single drive may destroy all existing data on your hard drive, therefore, back up any data on your hard drive before connecting it to the raid controller or use a blank or new hard drive.

1. As the BIOS boots press **Ctrl+S** or **F4** when prompted to enter the **RAID** BIOS.
2. At the next screen select **Create RAID Set**, then press **Enter**.
3. Select **Concatenation**, then press **Enter**.
4. Select **1**, then press **Enter**.
5. Select a hard disk drive, then press **Enter**.
6. When asked **Are You Sure (Y/N)?**, press **Y** to accept.

> **Note**: In the RAID BIOS screen, under **Logical Drive**, **SiI Concatenation** and the size of the logical drive will appear.

7. Press **Ctrl+E** to exit the BIOS.
8. When asked **Are you sure to exit (Y/N)?**, press **Y** to exit and reboot.

> **Note**: The hard disk will show up as **Contiguous** in the SATARAID5 GUI.

JBOD Drive Setup

This RAID Array combines the full capacity of two hard drives to form one logical drive. Since this configuration will destroy all existing data on your hard drives, use blank or new hard drives or back up your existing data before connecting to the raid controller.

1. As the BIOS boots press **Ctrl+S** or **F4** when prompted to enter the **RAID** BIOS.

2. At the next screen select **Create RAID Set**, then press **Enter**.
3. Select **Concatenation**, then press **Enter**.
4. Select **2**, then press **Enter**.
5. Select one hard disk drive, then press **Enter**.
6. Select the second hard disk drive, then press **Enter**.
7. When asked **Are You Sure (Y/N)?**, press **Y** to accept.

> **Note**: In the RAID BIOS screen, under **Logical Drive**, **SiI Concatenation** and the size of the logical drive will appear.

8. Press **Ctrl+E** to exit the BIOS.
9. When asked **Are you sure to exit (Y/N)?**, press **Y** to exit and reboot.

> **Note**: When two drives are combined using **JBOD**, each hard disk drive will appear as **Concatenated** in the SATARAID5 GUI.

Rebuilding a Failed Mirror Set

When a failure to one member occurs, you will be notified either by the **RAID BIOS** during boot or by the **SATA Raid5 GUI** while in Windows. The steps below will guide you in rebuilding a failed mirror set.

For Offline Mirror Rebuild (SATA RAID BIOS)

1. Replace the failed drive with one of equal or greater capacity, then start the computer.
2. During boot press **Ctrl+S** or **F4** to enter the **RAID** BIOS.
3. Select **Create RAID Set**, then press **Enter**.
4. Select **SPARE DRIVE**, then press **Enter**.
5. Select the single hard drive then press **Enter**.

6. Input the RAID size, press **Enter**. When asked **Are You Sure (Y/N)?**, press **Y** to confirm.
7. Select **Rebuild Raid 1 Set**, press **Enter**.
8. When asked **Are you sure (Y/N)?**, press **Y** confirm. The mirror will begin rebuilding. Do not interfere with the process.
9. When rebuilding is finished, press **Ctrl+E**.
10. When asked **Are you sure to exit (Y/N)?**, press **Y** to exit and reboot.

For Online Mirror Rebuild (in Windows)

1. Replace the failed drive with one of equal or greater capacity, then start the computer.
2. When Windows resumes, at the SATA SoftRaid 5 screen, click **Legacy Support**, then click **Rebuild Legacy RAID Group**.

   Note: If **Legacy Support** does not show, click **File**, **Configuration**, **Advanced Options**. Check **Legacy (Bootable) Support**, then click **OK**.

3. At **Rebuild Legacy RAID Group** box, select both hard drives, then click **Rebuild**.
4. Click **OK**, then click **Cancel** to close the window.
5. The mirror will rebuild. *Rebuild time is dependant on the size of the mirror set.*

Deleting RAID Arrays

1. As the BIOS boots press **Ctrl+S** or **F4** when prompted to enter the **RAID** BIOS.
2. Select **Delete RAID Set**, then press **Enter**.
3. Select the RAID set, then press **Enter**.
4. When asked **Are You Sure (Y/N)?**, press **Y** to confirm.

Resolving Conflicts

When a RAID set is created, the metadata written to the disk includes drive connection information. If, after a disk failure, the replacement disk was previously part of a RAID set (or used in another system), it may have conflicting metadata. If so, this will prohibit the RAID set from being either created or rebuilt, in order for the RAID set to function properly, this old metadata must be first overwritten with the new metadata. To resolve this, from the main BIOS window select **Resolve Conflicts**, then press **Enter**, the correct metadata, including the correct drive connection information, will be written to the replacement disk.

Low Level Format

Low Level Format is built into the RAID BIOS to make it more convenient to erase the entire contents of a hard disk drive, including data, drive and partition information. The Low Level Format utility works on single hard drives only, before the RAID set is configured.

Logical Drive Info

This menu item displays the assignment of physical drives within a logical set (RAID0, RAID1, Concatenated). This is a display only function.

BIOS Configuration

The *eSATA II PCIe Pro RAID* **BIOS** will appear everytime your system starts up. During this **(Post)** process, the bios will show up and indicate the devices attached to it. If the bios doesn't show, please install your controller into another PCIe slot.

Driver Installation

This section provides information on how to install the *eSATA II PCIe Pro RAID* drivers.

Windows 2000

For A New Installation

A new installation of Windows 2000 requires a floppy disk for the driver installation. To make this floppy disk, copy the **contents** of the **32bit** folder, found on the driver CD, onto a blank floppy disk then follow the directions below.

1. Setup the RAID array prior to Windows installation.
2. Follow Windows 2000 installation procedure.
3. At the **Windows 2000 Setup** screen, press **F6** to install the RAID driver.
4. When prompted, press **S** to specify the location of the driver.
5. Insert the floppy disk, then press **Enter**.
6. Select **Silicon Image SiI 3132 SoftRaid 5 Controller for Windows 2000**, then press **Enter**.
7. Press **Enter** again to finish driver installation, then follow the on-screen instructions to complete the Windows installation.

When Windows installation completes, go to **SATARaid5 GUI** on page 16 and install the RAID utility.

For An Existing Installation

1. Setup the RAID array prior to driver installation and boot up to Windows.
2. At **Found New Hardware Wizard**, click **Next**.
3. Select **Search for a suitable driver for my device (recommended)**, then click **Next**.

4. Insert the driver CD, check **CD-ROM drives**, uncheck the other boxes, click **Next**, click **Next** again, then click **Finish**.
5. Repeat steps 2-4.
6. Restart Windows to complete the installation.

When Windows resumes, go to **SATARaid5 GUI** on page 16 and install the RAID utility.

32-bit Windows XP/Server 2003

For A New Installation

A new installation requires a floppy disk for the driver installation. To make this floppy disk, copy the **contents** of the **32bit** folder, found on the driver CD, onto a blank floppy disk then follow the directions below.

1. Setup the RAID array prior to Windows installation.
2. Follow Windows installation procedure.
3. At the **Windows Setup** screen, press **F6** to install the RAID driver.
4. When prompted, press **S** to specify the location of the driver.
5. Insert the floppy disk, then press **Enter**.
6. Select **Silicon Image SiI 3132 SoftRaid 5 Controller for Windows XP/Server 2003**, then press **Enter**.
7. Press Enter again to finish the driver installation, then follow the on-screen instructions to complete your Windows installation.

When Windows installation completes, go to **SATARaid5 GUI** on page 16 and install the RAID utility.

For An Existing Installation

1. Setup the RAID array prior to driver installation and boot up to Windows.
2. At the **Found New Hardware Wizard**:

   XP (w/SP1 or earlier)/Server 2003: continue to step #3.

   XP (w/SP2 or later)/Server 2003 (w/SP1 or later): select **No, not at this time**, then click **Next**.
3. Insert the driver CD, select **Install the software automatically (Recommended)**, and click **Next**.
4. Click **Finish** to complete the driver installation.

When Windows resumes, go to **SATARaid5 GUI** on page 16 and install the RAID utility.

64-bit Windows XP/Server 2003

For A New Installation

A new installation requires a floppy disk for the driver installation. To make this floppy disk, copy the **contents** of the **64bit** folder, found on the driver CD, onto a blank floppy disk then follow the directions below.

1. Setup the RAID array prior to Windows installation.
2. Follow Windows installation procedure.
3. Restart the computer when prompted by Windows' installation.
4. At the **Windows Setup** screen, press **F6** to install the RAID driver.
5. When prompted, press **S** to specify the location of the driver.
6. Insert the floppy disk, then press **Enter**.
7. Select **Silicon Image SiI 3132 SoftRaid 5 Controller (64-bit Extended)**, then press **Enter**.

8. Press **Enter** to finish driver installation, then follow the on-screen instructions to complete Windows installation.

When Windows installation completes, go to **SATARaid5 GUI** on page 16 and install the RAID utility.

For An Existing Installation

1. Setup the RAID array prior to driver installation and boot up to Windows.
2. At the **Found New Hardware Wizard**:
   XP (w/SP1 or earlier)/Server 2003: continue to step #3
   XP (w/SP2 or later)/Server 2003 (w/SP1 or later): select **No, not at this time**, then click **Next**.
3. Insert the driver CD, select **Install the software automatically (Recommended)**, and click **Next**.
4. Accept the default entry, then click **Next**.
5. Click **Finish**.
6. Repeat steps 2-5.
7. Click **Yes** to restart to complete the installation.

When Windows resumes, go to **SATARaid5 GUI** on page 16 and install the RAID utility.

To Verify Windows 2000/XP/2003 Installation

1. Right click **My Computer**, click **Manage**.
2. Select **Device Manager**.
3. Double click **SCSI and RAID controllers**, and **Silicon Image SiI 3132 SoftRaid 5 Controller** should be displayed.

Windows Vista™

For A New Installation

1. Setup the RAID array prior to Windows installation.
2. Follow Windows installation procedure.
3. At **Where do you want to install Windows?**, click **Load Drivers**.
4. Insert the driver CD, click **Browse**.
5. Double click your CD-ROM drive:
   For 32-bit Windows Vista: select **32bit**, then click **OK**.
   For 64-bit Windows Vista: select **64bit**, then click **OK**.
6. Select **Silicon Image SiI 3132 SoftRaid5 Controller...**, then click **Next**.
7. Follow the on-screen instructions to complete the Windows Vista operating system installation.

When Windows installation completes, go to **SATARaid5 GUI** on page 16 and install the RAID utility.

For An Existing Installation

1. Setup the RAID array prior to Windows installation.
2. At the **Found New Hardware** window, click **Locate and install the driver automatically (recommended)**.
3. Insert the driver CD, click **Continue**.
4. Click **Next**, then **Close** to complete the installation.

When Windows resumes, go to **SATARaid5 GUI** on page 16 and install the RAID utility.

To Verify Windows Vista Installation

1. Right click **Computer**, click **Manage**, click **Continue**, select **Device Manager**.
2. Double click **Storage controllers**, and **Silicon Image SiI 3132 SoftRaid 5 Controller** should be displayed.

SATARaid5 GUI

The SATARaid5 GUI provides the user an easy way to monitor your RAID set.

SATARaid5 GUI Installation

Important: *Windows 2000 SP4 or later* is required for installation.

1. Insert the driver installation CD.
2. At the Windows desktop click **Start**:

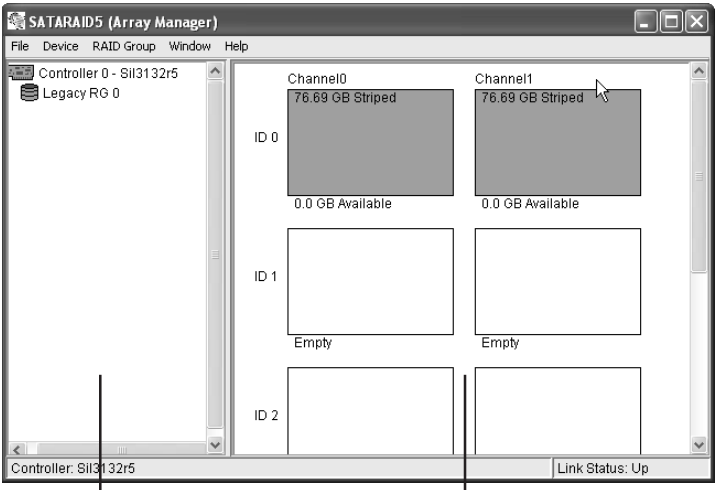
   For 2000: Click **Run**, type **D:\gui\setup2000.msi**, then click **OK**. (Change **D:** to match your CD-ROM drive letter)

   For Windows XP/Server 2003: Click **Run**, type **D:\gui\setup.msi**, then click **OK**. (Change **D:** to match your CD-ROM drive letter)

   For Windows Vista: In **Start Search** box, type **D:\gui\setup.msi**, then press **Enter**. (Change **D:** to match your CD-ROM drive letter)
3. Follow the on-screen instructions to complete the installation.

SATARaid5 GUI Overview

The installation program configures the SATARaid5 GUI to automatically start when Windows is started. If the GUI does not automatically start or is closed by the user, choose the SATARaid5 program from the start menu to launch the program. Upon launching the GUI, the main window should appear similar to the next few pages.



RAID Groups window

Device Configuration window

RAID Groups window

This window identifies SATA host adapters and configured RAID groups. Selecting each RAID group in the RAID Groups window, members consisting of the RAID group will be highlighted in the Device Configuration window.

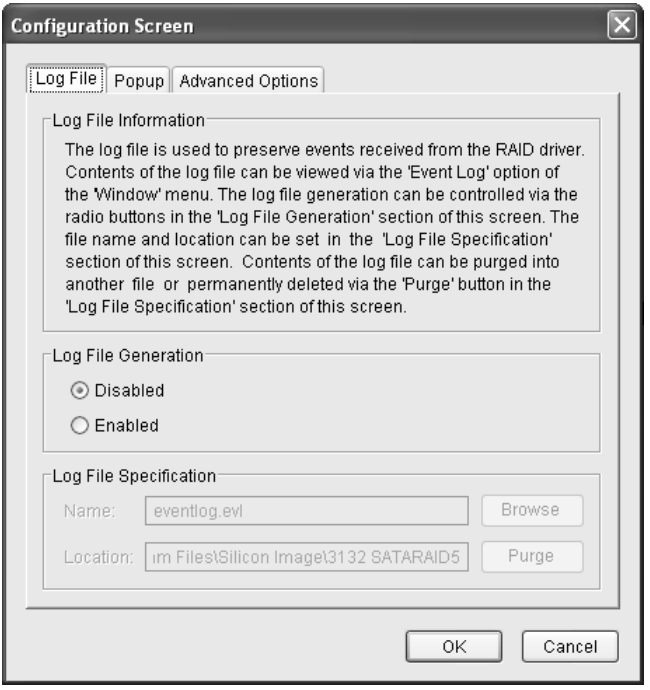
Right clicking on each node in the RAID Groups window, a popup menu will be displayed to let the user select an action to be performed for the selected controller or RAID group.

Device Configuration window

This window identifies all physical drives and their partitions. A physical drive can be partitioned into several portions and each portion can be a RAID group member.

SATARAID 5 Configuration Menu

SATARAID5 configuration menu includes customization of the settings for Log File, Popup and Advanced Options. By clicking on File, then Configuration, the user may customize the settings for Log File, Popup and Advanced Options tabs.


Configuration Screen
Log File
Popup
Advanced Options
Log File Information
The log file is used to preserve events received from the RAID driver. Contents of the log file can be viewed via the 'Event Log' option of the 'Window' menu. The log file generation can be controlled via the radio buttons in the 'Log File Generation' section of this screen. The file name and location can be set in the 'Log File Specification' section of this screen. Contents of the log file can be purged into another file or permanently deleted via the 'Purge' button in the 'Log File Specification' section of this screen.
Log File Generation
Disabled
Enabled
Log File Specification
Name:
eventlog.evl
Browse
Location:
m Files\Silicon Image\3132 SATARAID5
Purge
OK
Cancel

Log File

The log file is used to store event information received from all the RAID drivers. The log file can be viewed with any text viewer (such as Notepad) or with the Event Log window of SATARAID5 GUI. Use the Log File tab to enable/disable the log file, set where the log file should be stored and the name of the file as well.

Popup

The popup window is a visual notification that an event has occurred. The popup window can be disabled or set to popup for only certain event levels.

The different levels are:

Informational - The popup window will be displayed for the following events:

- Informational
- Warnings
- Errors

Warning - The popup window will be displayed for the following events:

- Warnings
- Errors

Errors - The popup window will be displayed for the following events:

- Errors

Disabled - No popup will occur

Advanced Options

The advanced options tab is used to control advanced features of the RAID driver. By default, all advanced options are disabled.

Legacy (Bootable) Support: When this feature is selected, Legacy Support menu will be available in the menu bar. The Legacy Support menu includes a list of menu items to support RAID functions for legacy RAID groups.

Delete Member Support: When this feature is selected, Delete Member menu item will be available under the Device menu. The Delete Member menu item allows the user to delete a member from RAID 1 group.

Advanced RAID Features: When this feature is selected and the user selects to create RAID group, if the RAID group to be created is fault tolerant group (RAID1), the user will be able to select Improper Shutdown Policy in the Create RAID Group dialog box. The Advanced RAID Features are not supported for Legacy RAID groups.

Resources Info Support: When this feature is selected, Resources menu item will be available under the Window menu. This feature is for debugging purpose only.

Device Menu Command

Create Spare and Delete Spare

This command displays a dialog box to let the user create or delete a spare drive. This feature is not used with the *eSATA II PCIe Pro RAID*.

Delete Member

This command displays a dialog box to let the user choose RAID groups' members to delete. Since RAID 0 is not fault-tolerant, RAID 0 members will not be shown in the list.

Delete Orphan

An orphan device segment is part of a RAID group that cannot access another device segment within the same RAID group. When a member of a RAID group fails (such as a loss of power or a complete hard disk failure), it becomes an orphan. This command displays the Delete Orphan Segment window to show all orphan segments and allows the user to delete selected orphan segments.

Make Pass-Thru

Removes any Metadata on the drive so it will function as an ordinary hard disk drive.

Device Summary

This command displays the Segment Summary window to show all physical devices' segments.

RAID Group Menu Command

Create RAID Group

This command displays a dialog box to let user create a RAID group, the user needs to specify the following parameters:

RAID Group Label: Provides a name for the RAID group.

RAID Group: Select a group ID from the available ID list.

Configuration: *Striped*: for RAID 0; *Mirrored*: for RAID 1; *Contiguous*: for non-RAID single drive; *Concatenated*: for JBOD (requires 2 hard drives)

Capacity: Select from a list of RAID group sizes. Selecting MAX will create the largest RAID set possible with the drives selected.

Chunk Size: Select one size from the available list. This setting is for RAID 0 (Stripe) set only.

Rebuild Priority: Select from the available list. RAID 0 and virtual disk do not require this. 10 is the highest level of rebuild priority which means that rebuild times will be faster but will take more CPU resources to rebuild.

Devices: Select RAID member devices from the available device segment list.

Rebuild RAID Group

This command displays a dialog box to let the user choose a replacement segment to rebuild a non-fault tolerant RAID group.

Delete RAID Group

Lets the user choose RAID group(s) to delete.

RAID Group Summary

This command displays a dialog box to show all RAID groups' group ID, configuration and status. The RAID Group Summary window has it's own menu bar. All options available via the menu bar are shown below.

Sorting: This command displays a dialog box to let the user choose up to 3 items to sort RAID group items in the RAID Group Summary window.

Fields: This command displays a dialog box to let the user choose which fields will be shown in the RAID Group Summary window.

Window Menu Command

Task Manager

This command displays the Task Manager window. The Task Manager window list all RAID and disk management tasks that have been started and/or done. This window provides the user with the ability to schedule any RAID and disk management operations including RAID group creation, rebuild and test. The Task Manager window has it's own menu bar. All options available via the menu bar are shown below.

Open, Save and Print: These options will be available in future revisions.

Sorting: This command displays a dialog box to let the user choose up to 3 items to sort task items in the task list.

Fields: This command displays a dialog box to let the user choose which fields will be shown in the task list.

Modify: This command allows the user to modify parameters of the selected task items.

Suspend: This command allows the user to suspend the selected task items.

Resume: This command allows the user to resume the suspended task items.

Cancel: This command allows the user to cancel the selected task items.

Delete: This command displays a dialog box to let the user delete the selected task items.

Event Log

This command displays the Event Log window. The Event Log window displays SATA device-related events that occur while SATARAID5 GUI is running. The Event Log window has it's own menu bar. All options available via the menu bar are shown below.

Sorting: This command displays a dialog box to the the user choose up to 3 items to sort event items in the event log.

Fields: This command displays a dialog box to let the user choose which fields will be shown in the event log.

Resources

This command displays the Resources Information window. This feature is for debugging purpose only.

Legacy Support Menu Command

Create Legacy RAID Group

This command displays a dialog box to let the user create legacy (bootable) RAID groups. This item is disabled if new RAID groups exist. The parameters are discussed below.

RAID Group: Selects a group ID from the available list.

Configuration: *Striped*: for RAID 0; *Mirrored*: for RAID 1; *Contiguous*: for non-RAID single drive; *Concatenated*: for JBOD (requires 2 hard drives)

Capacity: Select from a list of RAID group sizes.

Chunk Size: Select one value from the available list.

Rebuild Priority: Select from the available list. RAID 0 and virtual disk do not require this. 10 is the highest level of rebuild priority which means that rebuild times will be faster but will take more CPU resources to rebuild.

Devices: Select RAID member devices from the available device segment list.

Rebuild Legacy RAID Group

This command displays a dialog box to let the user choose a replacement segment to rebuild a non-fault tolerant legacy RAID group.

Delete Legacy RAID Group

This command displays a dialog box to let the user choose legacy RAID groups to delete. This item is disabled if no legacy RAID group exists.

Convert Legacy RAID Group

This command displays a dialog box to let the user choose legacy RAID groups to convert to new RAID groups of the same RAID type. This item is disabled if no legacy RAID group exists.

Create/Delete/Convert Legacy Spare

These commands display a dialog box to let the user configure a legacy spare. These features are not used with the *eSATA II PCIe Pro RAID*.

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Technical Support and Warranty

QUESTIONS? SIIG's **Online Support** has answers! Simply visit our web site at ***www.siig.com*** and click **Support**. Our online support database is updated daily with new drivers and solutions. Answers to your questions could be just a few clicks away. You can also submit questions online and a technical support analysts will promptly respond.

SIIG offers a lifetime manufacturer warranty with this product. Please see our web site for more warranty details. If you encounter any problems with this product, please follow the procedures below.

A) If it is within the store's return policy period, please return the product to the store where you purchased from.

B) If your purchase has passed the store's return policy period, please follow these steps to have the product repaired or replaced.

Step 1: Submit your RMA request.

Go to **www.siig.com**, click **Support**, then **RMA** to submit a request to SIIG RMA. If the product is determined to be defective, an RMA number will be issued.

Step 2: After obtaining an RMA number, ship the product.

- Properly pack the product for shipping. All software, cable(s) and any other accessories that came with the original package must be included.
- Clearly write your RMA number on the top of the returned package. SIIG will refuse to accept any shipping package, and will not be responsible for a product returned without an RMA number posted on the outside of the shipping carton.
- You are responsible for the cost of shipping. Ship the product to the following address:

  SIIG, Inc.
  6078 Stewart Avenue
  Fremont, CA 94538-3152, USA
  RMA#: _____

- SIIG will ship the repaired or replaced product via Ground in the U.S. and International Economy outside of the U.S. at no cost to the customer.

About SIIG, Inc.

Founded in 1985, SIIG, Inc. is a leading computer upgrade manufacturer of I/O connectivity products, including PCIe, PCI & ISA serial and parallel ports, USB, Serial ATA & UltraATA controllers, FireWire (1394a/b), networking, sound cards, and other accessories. SIIG is the premier one-stop source of upgrades.

SIIG products offer comprehensive user manuals, many user-friendly features, and are backed by an extensive manufacturer warranty. High-quality control standards are evident by the overall ease of installation and compatibility of our products, as well as one of the lowest defective return rates in the industry. SIIG products can be found in computer retail stores, mail order catalogs, through major distributors, system integrators, and VARs in the Americas and the UK, and through e-commerce sites.

PRODUCT NAME
eSATA II PCIe Pro RAID

FCC RULES: TESTED TO COMPLY WITH FCC PART 15, CLASS B OPERATING ENVIRONMENT: FOR HOME OR OFFICE USE

FCC COMPLIANCE STATEMENT:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

THE PARTY RESPONSIBLE FOR PRODUCT COMPLIANCE

SIIG, Inc.
6078 Stewart Avenue
Fremont, CA 94538-3152, USA

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